

Serial No.: 10/036,485

IN THE CLAIMS:

Please amend claims 1-5 as follows:

5.0
8.1
1. (Amended) A plasma-processing method comprising:
mounting an object to be processed on a mounting unit
located within a process chamber;
generating a plasma by feeding a plasma-generating gas
containing sulfur hexafluoride and helium into the process
chamber and by causing a plasma discharge, the plasma-generating
gas containing more helium than sulfur hexafluoride;
etching an object with the plasma, thereby causing at least
one reaction product; and
removing said at least one reaction product from a surface
of such etched object.

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2. (Amended) The plasma-processing method of claim 1, wherein said generating the plasma further comprises:

Sub 2/1 ems. applying a high-frequency voltage to the mounting unit; and supplying the plasma-generating gas from at least one ejection hole in a member located opposite to the mounting unit.

3. (Amended) The plasma-processing method of claim 1, wherein an object to be mounted is a wafer having first and second sides, and the second side includes a damaged-layer damaged by mechanical polishing or grinding, and

said etching an object and said removing said at least one reaction product occur simultaneously thereby causing removal of the damaged-layer of such a wafer.

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4. (Amended) The plasma-processing method of claim 3,
wherein:

a wafer to be mounted includes a protective sheet affixed
to the first side thereof, and

said etching an object further comprises etching such a
wafer with the protective sheet mounted to the mounting unit.

5. (Amended) The plasma-processing method of claim 4,
wherein said etching a wafer further comprises etching such a
wafer while cooling the mounting unit.

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Please add claims 6 and 7 as follows:

6. (New) The plasma-processing method of claim 1, wherein the plasma-generating gas contains sulfur hexafluoride and helium in a concentration ranging from 1:1 to 1:10.

7. (New) The plasma-processing method of claim 1, wherein said removing said at least one reaction product comprises causing the helium contained in the plasma-generating gas to remove said at least one reaction product from a surface of such etched object.
